

## **REMARKS**

### ***Summary of Changes Made***

By this Amendment, the specification has been amended in several places to correct spelling and grammar problems. Further, claim 1 has been amended to specify the composition of the glass component, claims 2 and 12 have been amended to restate the composition of the glass component, and claims 4 and 14 have been amended to fully independent form. The application was originally filed with 20 claims. In response to a restriction requirement claims 7-11 and 15-20 were canceled, and the provisional election to prosecute the Invention of Group 1 (claims 1-6 and 12-14) is hereby affirmed. New claims 21-31 have been added. Accordingly, claims 1-6, 12-14, and 21-31 (20 claims) remain pending in the application. No new matter has been added by this amendment.

### ***Specification Amendments***

Paragraphs 20-22 and 25 contained several spelling and/or grammar errors. The amended versions of paragraphs 21 and 22 include correct spellings of "fluorosilicic acid" and "fluorosilicate." In paragraph 20, the non-existent word "dispersement" was replaced with "dispersion." In paragraph 25, a grammar error was corrected, to wit, provision of an auxiliary verb between "which" and "not." It is submitted that the addition of the word "should" adds no new matter to the application inasmuch as a word of this nature would automatically be supplied by the mind of one skilled in the art when reading the specification, indicating generally, that it is undesirable to add selenium oxide to the inventive compositions herein.

### ***Allowable Subject Matter***

The Applicants expressly acknowledge that the Examiner finds that claims 4 and 14 are drawn to allowable subject matter and that they would be allowable if amended to overcome the rejections under 35 U.S.C. 112, second paragraph "set forth in this Office action." The Examiner noted that "[t]he prior art of record fails to teach of fairly

suggest the claimed glass frit having the specific ranges of components." Claims 4 and 14 have been amended to fully independent form, including the limitations of their respective base claims and all intermediate claims. It is believed that claims 4 and 14 are now in condition for allowance.

***Claim Rejections - 35 U.S.C. §112, second paragraph***

Claims 4 and 14 were rejected under 35 U.S.C. 112, second paragraph. A careful reading of the Office Action reveals that the Examiner mentions a 35 U.S.C. 112 rejection for indefiniteness (page 5, point 11), but the Office Action does not actually contain such a rejection. However, looking at claims 4 and 14, it appears that the rejection is based on a lack of antecedent basis for the elements recited in those claims. However, in light of the amendment to claims 4 and 14, above, it is believed that the rejection has been overcome and that claims 4 and 14 are now in condition for allowance.

***Claim Rejections - 35 U.S.C. §102(b) - Bryson***

The Examiner rejected claims 1, 5, and 6 under 35 U.S.C. 102(b) as being unpatentable over Bryson U.S. 3,663,245 ("Bryson"). The Examiner contends that Example 2 of Bryson discloses a color concentrate including 20.5% of  $\text{Cr}_2\text{O}_3$  with the remainder being sodium silicate. The Examiner asserts that sodium silicate is a glass component and may also be characterized as a binder, as recited in instant claim 6.

It is believed that an error in the Bryson reference has led to its improper citation as an anticipating reference with respect to instant claims 1, 5, and 6. The Examiner stated that Example 2 (col. 3, ll. 48-57) of Bryson discloses a color concentrate including 20.5% of  $\text{Cr}_2\text{O}_3$  and the remainder sodium silicate. The Bryson patent does, indeed, contain a statement that "[t]he concentrate contain[s] 20.5%  $\text{Cr}_2\text{O}_3$ ." However, as seen in the text of Example 2, that color concentrate was made by blending 500 grams of sodium silicate with 50 grams of  $\text{Cr}_2\text{O}_3$ . The result is a color concentrate having  $[50 \div (50 + 500) = ]$  9.1%  $\text{Cr}_2\text{O}_3$  by weight and not 20.5%. Instant claim 1 recites a glass component comprising about 15 to about 35 wt % of chromium oxide. Hence,

the cited example of Bryson (9.1%  $\text{Cr}_2\text{O}_3$ ) falls outside the scope of instant claim 1. It is respectfully submitted that this reasoning overcomes the *prima facie* case of anticipation of claims 1, 5, and 6.

***Claim Rejections - 35 U.S.C. §102/103 - Thometzek***

Next, the Examiner rejected claims 1-3, 5, 6, 12 and 13 under 35 U.S.C. 102(b) as being unpatentable as anticipated or in the alternative, under 35 U.S.C. 103(a) as obvious over Thometzek et al., U.S. 5,393,714 ("Thometzek"). The Examiner asserts that Thometzek discloses a color granule including 0.2-20 wt % of an inorganic binder such as sodium silicate, 5-75 wt % of at least one glass frit, and a coloring body including chromium oxide or mixtures including chromium oxide. The Examiner contends that the glass frit of Example 1 falls within the ranges claimed instantly in claims 2 and 12. The Examiner admits that the Thometzek reference does not teach that the composition may be used in the manner instantly claimed, but then alleges that the intended use of the claimed composition does not patentably distinguish the composition because the undisclosed use is inherent in the composition of the reference.

The Examiner will note that claims 1, 2, 3, and 12 have been amended. Claim 1 incorporates the frit ingredient ranges of original claim 2, except the  $\text{Na}_2\text{O}$  range, which is about 8% to about 22% by weight. This range falls outside the broadest disclosed range of  $\text{Na}_2\text{O}$  in Thometzek. Similarly, claim 2 has been amended to recite about 8% to about 22% by weight  $\text{Na}_2\text{O}$  and about 4% to about 18%  $\text{B}_2\text{O}_3$ . Claim 3 has been amended to depend from claim 1. Claim 12 has been amended to recite  $\text{Na}_2\text{O}$ , in the amount of  $\text{Na}_2\text{O}$ , which is about 8% to about 22% by weight. Because the range of  $\text{Na}_2\text{O}$  now recited in claims 1 and 12, falls outside the most broadly disclosed range of  $\text{Na}_2\text{O}$  in Thometzek, it is believed that claims 1 and 12, as amended, as well as claims 2, 3, 5, and 13, which depend therefrom, are novel over that reference.

Turning to the 35 U.S.C. 103(a) rejection, we note that because the Thometzek reference does not disclose all elements of the instantly claimed compositions (as set forth in amended claims 1, 2, 3, and 12), it would not then be obvious to use them in the manner instantly claimed merely by a reading of Thometzek. In other words, the

inherency argument set forth by the Examiner fails, and it is respectfully submitted that the 35 U.S.C. 103(a) rejection has been overcome.

### ***New Claims***

New claims 21-31 have been added to round out claim coverage. Support for the claimed coloring oxides is found in paragraph 18 of the published patent application, U.S. 2005/0020429. Support for the claimed binder materials can be found in paragraphs 21 and 22. The composition of claims 25 and 31 is presented in table 1 in paragraph 32. No new matter is added by claims 21-31. It is submitted that claims 21-31 are patentable over all cited prior art and hence in condition for allowance.

### ***Information Disclosure Statement***

Accompanying this amendment is an Information Disclosure Statement in accordance with 37 C.F.R. 1.97(e)(2). Namely, the International Search Report (ISR) for corresponding PCT Application No. PCT/US04/19861, cited two U.S. patents not previously cited by, or reported to, the Examiner. Those patents are Dupont et al., U.S. 5,728,471 and Shelestak et al., U.S. 5,830,812. The mailing date of the ISR was April 6, 2005.


## **CONCLUSION**

In light of the foregoing, it is respectfully submitted that the present application, including claims 1-6, 12-14, and 21-31, is in condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in a condition for allowance, the Examiner is invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present application.

If there are any additional fees resulting from this communication, please charge the same to our Deposit Account No. 06-0625, our Order No. FER-275.

Respectfully submitted,

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